

Jet User Meeting

The “We are almost there” meeting

1 Sept 2010

Overview

- What is Jet?
- System Status
- Current Schedule
- Moving wJet/hJet models to new OS
- Jetty decommission
- System Documentation

What is Jet?

- Jet represents all of the RDHPCS resources at NOAA's Global Systems Division
 - It consists of several different HPC systems
 - hJet, nJet, tJet
 - It (now) has a single unified front
 - The login and service nodes are the same
 - Access is by logging into **jet.rdhpcs.noaa.gov**
 - The filesystems are consistent on all systems
 - Home filesystem /home
 - Project filesystems: /lfs0, /lfs1, /pan1
 - The Operating System and Tools are identical across all components

What is Jet? (cont)

- Why the hassle with the different names?
 - hJet, nJet, and tJet represent 3 generations of HPC systems
 - Accounts are assigned to different systems based on the project and their requirements
 - hJet – RDHPCS users
 - tJet – HFIP users
 - nJet – Divided between RDHPCS, HFIP, and FAA

All the systems work the same! The only difference is the parallel environment (queue) you specify to run your jobs.

Updates

- tJet is available for use
- Old front-ends (wfe*, wcron*) are now decommissioned
- All downtimes for tJet installation completed
- Benchmarking of the system was mostly completed
 - Top500 List system performance: 126.5 Tflops
 - This is 35th on the current list

Current Schedule

Date	Event	Duration
2 Sept	Decommission wJet Front Ends**	..
8 Sept	Transition of SCP hosts	..
8 Sept	Start use of required PE by RDHPCS users	..
13 Sept	Decommission wJet	..
30 Sept	Decommission Jetty	..

** Nodes will be shut down at 3pm MDT

** Cron servers (wcron0 and wcron1) will be disabled at this time. Users will be able to login and get at their crontabs, but cron will not be running and project and HSMS filesystems will not be available. You must move your crontabs to cron1 or cron2.

** Codes will still run on wJet after this date, however it will not be possible to recompile your codes for wJet.

System Resources

Allocations by projects after upgrade

System	RDHPCS	HFIP	FAA	Total
hJet	2016			2016
nJet	1372	472	1736	3584
tJet		10128		10128

Number of cores available to each project per system.

Total system performance: 170 Tflops

RDHPCS users, moving to new PE

- Earlier this week, RDHPCS users received email regarding where their projects are moving
 - Most moved to nJet
 - Some moved to hJet
 - All real-time experiments are on hJet
- Current Status
 - PE ncomp and hcompnew are available
- Official transition, Sept 6
 - Accounts will be prevented from submitting to systems which they do not have access

RDHPCS users, moving to new PE

- For users moving to nJet
 - Binaries from hcomp should work with no changes
 - Change your PE to ncomp
 - Divide your core count in half
 - All project allocations have been cut in half, representing the performance difference between wJet and nJet
 - See what happens!

If you have issues with using half as many cores, email hpcshelp.fsl@noaa.gov and provide details of any issues you are having.

PE Name Summary

PE Name	Function
hcomp or hcompnew	Parallel jobs on hJet
hserial	Serial jobs on hJet
ncomp	Parallel jobs for RDHPCS on nJet
nserial	Serial jobs for RDHPCS on nJet
hfip	Parallel jobs on either tJet or nJet
thfip	Parallel jobs on tJet
nhfip	Parallel jobs for HFIP on nJet
hfipserial	Serial jobs for HFIP on nJet
service	Serial jobs that require external network access for file transfer or DB access
mss	Serial jobs that require access to HSMS

System Documentation

- Yes, its true!

<https://jetdocs.rdhpcs.noaa.gov>

- Use your NEMS credentials to login to the site
- One issue:
 - Only available from inside ESRL
 - We are working on security to open up to other sites

Decommissioning Jetty

- Mounts for /rt and /exchange are now available on Jet
 - Now, just copy files directly
 - They will only be mounted on the service nodes
- If you need to do it within a batch system job (workflow manager)
 - Use PE 'service'
- Jetty will be decommissioned on Sept. 30th

SCP host transition

- The SCP hosts, like the service nodes, are being replaced.
- The migration will be September 8th, at 10am
 - There will be a 30 minute outage.
- The IP addresses will be the same.



Questions???